EXHIBIT A

EXHIBIT A: PLAINTIFF'S ISSUES OF LAW AND FACT

I. BACKGROUND

Plaintiff Novozymes A/S ("Novozymes") is seeking damages based on the manufacture and sale of infringing alpha-amylase products by Defendants Genencor International, Inc. ("Genencor") and Enzyme Development Corporation ("EDC"). The infringing products are sold under the names Spezyme Ethyl, Spezyme Prime and Amylex HT (collectively, "Spezyme Ethyl products").

Novozymes began sales in 1999 of its patented line of alpha-amylase products under the names Liquozyme SC and Termamyl SC (collectively, "Liquozyme products"). Those products are manufactured and sold in the United States through its subsidiary Novozymes North America, Inc. Novozymes' Liquozyme products had captured a huge percentage of the domestic alpha-amylase before Genencor's launched its "me-too" Spezyme Ethyl alpha-amylase product in 2004.

Genencor was aware of Novozymes' pending patent application during the development of its Spezyme Ethyl products and before those products were launched. In September 2004, Novozymes informed Genencor that its patent application been allowed with claims that would cover the Spezyme Ethyl products. Genencor took no action in response. After that patent issued as U.S. Patent No. 6,867,031 ("the '031 Patent") in March 2005, Genencor continued selling infringing products.

The infringing Spezyme Ethyl products were specifically designed to be a substitute for Liquozyme products and have been successful at displacing sales of those products in the marketplace. Since the Spezyme Ethyl products were launched, the

market share for Liquozyme products has essentially been cut in half. Novozymes has also been forced to cut its prices to compete with the infringing products.

Accordingly, Novozymes is entitled to its lost profits both for its lost sales and for price erosion. In addition, Novozymes is entitled to a reasonable royalty for sales outside of the United States market for fuel ethanol, and to enhanced damages due to Genencor's willful infringement.

II. ACTUAL DAMAGES

When a plaintiff prevails on a claim for patent infringement, "the court shall award the claimant damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer." 35 U.S.C. § 284. This statutory requirement "is expansive rather than limiting. It affirmatively states that damages must be adequate, while providing only a lower limit and no other limitation." *Rite Hite Corp. v. Kelley Co.*, 56 F.3d 1538, 1544 (Fed. Cir. 1995) (en banc); *see also Minco, Inc. v. Combusion Eng'g, Inc.*, 95 F.3d 1109, 1118 (Fed. Cir. 1996) ("the patent holder may recover for an injury caused by the infringement if it 'was or should have been reasonably foreseeable by an infringing competitor in the relevant market, broadly defined'") (quoting *Rite Hite*, 56 F.3d at 1546).

Novozymes is entitled to damages for its lost profits for lost sales and price erosion in the United States fuel ethanol market, and a reasonable royalty for sales in the food and beverage market and sales outside the United States.

A. Lost Profits

Novozymes is entitled to recover its lost profits from lost sales of its own competing product and from price erosion. *See Hebert v. Lisle Corp.*, 99 F.3d 1109,

1119 (Fed. Cir. 1996) ("damages may include lost profits due to diverted sales, price erosion, and increased expenditures caused by the infringement"). At bottom, these damages are measured by a simple equation: "had the Infringer not infringed, what would the Patentee Holder-Licensee have made?" *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 377 U.S. 476, 507 (1964).

i. Lost Profits from Lost Sales

This case presents a quintessential two-supplier market in which the patented Novozymes products and the infringing Genencor products perform essentially identically and face no other competition in the marketplace. As such, Novozymes is entitled to recoup the profits on the sales of Liquozyme products it would have made but-for Defendants' sales of infringing Spezyme Ethyl products.

"To recover lost profits damages, the patentee must show a reasonable probability that, 'but for' the infringement, it would have made the sales that were made by the infringer." *Rite-Hite*, 56 F.3d at 1545. Novozymes is entitled to lost profits because it meets the requirements of the familiar four-part *Panduit* test:

1. Demand for the patented product;
2. Absence of acceptable non-infringing substitutes;
3. Manufacturing and marketing capability to exploit demand; and
4. Amount of profit that it would have made absent the infringement.

See Panduit Corp. v. Stahlin Bros. Fiber Works, Inc., 575 F.2d 1152 (6th Cir. 1978); *see also Golden Blount, Inc. v. Robert H. Peterson Co.*, 438 F.3d 1354, 1371-72 (Fed. Cir. 2006) (listing *Panduit* factors).

(a) These Products have High Demand

Alpha-amylase enzymes in general are useful for catalyzing a biochemical reaction that breaks starches into smaller molecules. These alpha-amylase products are in

high and ever increasing demand for the production of fuel ethanol and in other industries, such as the food and beverage industry.

The products at issue in this lawsuit have particularly desirable features that include high thermostability; that is, they are able to withstand the very high temperatures used in the production of fuel ethanol and other applications. This feature makes these products far more efficient and cost-effective than traditional non-thermostable alpha-amylase products. *See* Findings of Fact & Conclusions of Law, Docket No. 161, at 3 ("Hence, the thermostability of the enzyme, its capacity to withstand high temperatures, is important to its effectiveness in industrial applications."). There is a great demand for the particular advantages provided by the patented invention.

Defendants do not dispute that there is a high demand for highly-thermostable alpha-amylase products and that such products have been successful in the marketplace. Novozymes introduced its Liquozyme line of thermostable alpha-amylase products in 1999, and has since achieved sales of more than [redacted] of these products. Genencor introduced its infringing line of Spezyme Ethyl products in 2004 and has since achieved more than $20 million in sales. *See* Findings of Fact & Conclusions of Law at 22 ("Since April 2004, sales of Spezyme Ethyl have been considerable.").

(b) This is a Two-Supplier Market

The market for these high-performance alpha-amylase products is supplied by only two companies, Novozymes and Genencor. There are no acceptable noninfringing substitutes. The Court may therefore reasonably infer that had defendants not sold its infringing products, those sales would have been captured by Novozymes and its Liquozyme product line. *See, e.g.*, *Micro Chem. v. Lextron, Inc.*, 318 F.3d 1119, 1125 (Fed. Cir. 2003) ("If the patentee shows two suppliers in the relevant market, capability

to make the diverted sales, and its profit margin, that showing erects a presumption of 'but for' causation [of lost profits]."); *see also Crystal Semiconductor Corp. v. Tritech Microelecs. Int'l, Inc.*, 246 F.3d 1336, 1356 (Fed. Cir. 2001) ("In the two-supplier market, it is reasonable to assume, provided the patent owner has the manufacturing and marketing capabilities, that it would have made the infringer's sales. In these instances, the *Panduit* test is usually straightforward and dispositive.").

Genencor has argued that absent the infringement, both Genencor and third parties would have sold some unspecified amount of other "non-infringing alpha-amylase products." However, Genencor cannot show that these products are "acceptable" noninfringing substitutes. *See Stryker Co. v. Inter Medics Orthopedics, Inc.*, 96 F.3d 1409, 1418 (Fed. Cir. 1996) ("The critical question was not whether there were competing devices, but whether there were acceptable substitutes.").

In fact, these other products are inferior and far less suitable for the rigorous demands of the fuel ethanol and other industries. *See, e.g.*, Findings of Fact & Conclusions of Law at 22 ("None of those [Spezyme Fred] products had a sufficient combination of acid tolerance, thermostability, and low cost to be economically viable for use in fuel ethanol production."). Because these other products have different characteristics that make them uneconomical and impractical for the relevant market, they cannot be considered *acceptable* noninfringing substitutes. *See Stryker*, 96 F.3d at 1418 (noting that products that lack the specific advantages of a patented product "could hardly be termed acceptable substitutes"); *see also Crystal Semiconductor*, 246 F.3d at 1356 (holding that acceptable noninfringing substitutes do not include products "with disparately different prices or significantly different characteristics").

Moreover, there is no probative evidence that either Genencor or any third party could actually have begun manufacturing and sales of any other acceptable substitutes starting in March 2005, when the patent issued and the infringement began.

Defendants rely on *Grain Processing Corp. v. American Maize-Products Co.*, 185 F.3d 1341, 1343-44 (Fed. Cir. 1999). In that case, the Federal Circuit held that "a technology not on the market at the time of infringement can, in certain circumstances, constitute an available, noninfringing alternative." *Micro Chem.*, 318 F.3d at 1122. However, *Grain Processing* was limited to particular facts where the defendant had the ability to switch to an acceptable noninfringing substitute almost overnight. *See id.* at 1123 (noting that in *Grain Processing*, defendant had ability "to convert to the substitute manufacturing process in the remarkably short period of two weeks").

The *Grain Processing* opinion further cautioned that its holding was limited to situations where an acceptable noninfringing substitute actually "was available" at the time infringement began, rather than only potentially or theoretically available. *See Grain Processing*, 185 F.3d at 1343 ("Acceptable substitutes that the infringer proves *were available* during the accounting period can preclude or limit lost profits; substitutes only *theoretically possible* will not.") (emphasis added). Accordingly, if the alternative product was still under development or had not yet been considered at the time infringement began, it cannot be deemed an acceptable noninfringing substitute. *See id.* ("When an alleged alternative is not on the market during the accounting period, a trial court may reasonably infer that it was not available as a noninfringing substitute at that time."); *Micro Chem.*, 318 F.3d at 1123 (distinguishing *Grain Processing* where defendant's product took over four months to be converted into a non-infringing form

and "[t]he record shows that [defendant] did not have the necessary equipment, know-how, and experience to make the [noninfringing] machine at the time of infringement"); *see also Cordis Corp. v. Boston Sci. Corp.*, Civ. No. 03-027-SLR, 2005 U.S. Dist. Lexis 10749, *6 (D. Del. June 3, 2005) ("the fact that a licensee could make a [noninfringing product] does not mean that there are noninfringing alternatives available on the market"); *Honeywell Int'l, Inc. v. Hamilton Sundstrand Corp.*, 166 F. Supp. 2d 1008, 1030 (D. Del. 2001) ("Technology which is still in development during the accounting period is not considered to be an available alternative."), *aff'd in part and rev'd in part on other grounds*, 370 F.3d 1131 (Fed. Cir. 2004).

Genencor has the burden of proving that acceptable noninfringing substitutes existed as of March 2005. *See Grain Processing*, 185 F.3d at 1343. Genencor cannot meet this burden simply by offering wild speculation that some other products *might have been* available at some unspecified time. *See id.* ("Mere speculation or conclusory assertions will not suffice to overcome the inference [that a product was unavailable]."); *see also Kaufman Co. v. Lantech, Inc.*, 926 F.2d 1136, 1142 (Fed. Cir. 1991) (an alleged substitute that was "immature and more expensive than the patented technology during the time of infringement cannot have been an acceptable non-infringing substitute"). Novozymes will show that none of the products identified by Genencor (Spezyme XTRA from Genencor, Ultra-Thin from Valley Research, or unspecified products from unspecified "Chinese enzyme producers") are acceptable noninfringing substitutes that were actually available as of March 2005.

Defendants also correctly note that the Liquozyme products are not patented under the patent-in-suit, but are instead protected by a related patent (U.S. Patent No.

6,297,038). But this is a red herring. A patentee is entitled to damages for any sales that it lost but-for the infringement, whether or not those products are covered by the patent-in-suit. *See Rite-Hite*, 56 F.3d at 1544-49 (rejecting same argument and holding that lost profits were awardable for lost sales of product even though product was protected by different patent, not patent in suit). The Spezyme Ethyl products were designed to be direct substitutes for Liquozyme products and to compete head-for head for the same sales.

(c) Novozymes had Marketing and Manufacturing Capacity

Novozymes witnesses will testify that absent infringing sales by Defendants, Novozymes could have easily, and without delay, manufactured the additional volume necessary to satisfy increased customer demand. Specifically, Novozymes regularly evaluates its production demands and shifts production among its numerous worldwide plants to balance capacity. Novozymes also maintains sufficient inventory to meet future demand. Novozymes witnesses will testify about how Novozymes has had the ability, from the date the patent issued to the present, to meet this demand.

Likewise, Novozymes had and has the marketing and sales capacity to serve Defendants' customers and make the additional sales of its Liquozyme products. Novozymes and Genencor already largely compete directly for the same customers. Much of this marketing is done through large buying groups, such as ICM and the Renewable Products Buying Group ("RPBG"), which reduces the resources needed for marketing. Novozymes witnesses will testify about how the additional sales would have been made.

(d) Novozymes Suffered Lost Profits

With the evidence at trial established under the four-part *Panduit* test, the Court may reasonably assume that absent the infringement, Novozymes would have captured 100% of the market for thermostable alpha-amylase products for the fuel ethanol market. Moreover, Novozymes *did in fact* lose substantial sales due to sales of infringing Spezyme Ethyl products. The evidence will show that that as Spezyme Ethyl products gained market share from mid-2004 to mid-2005, the sales of Novozymes products fell precipitously and in an amount directly corresponding to the increased sales of Spezyme Ethyl products.

Novozymes generally calculates its profit margins using both gross margin (profit less cost of raw material and energy costs) and net margin (profit less all variable and other production costs). Novozymes expert July L. Davis has assessed lost profits based on the more conservative figure of net margin, even though this includes certain fixed costs. Davis has calculated that based on this net margin profit rate, Novozymes would have earned an additional profit of [redacted] on lost sales through July 2006 but-for Defendants' sales of infringing products.[1]

(e) Defendants have Not Rebutted the Presumption of Lost Profits

Novozymes is only required to establish to a "reasonable probability" that it would have made these lost profits absent the infringement. *Rite-Hite*, 56 F.3d at 1545. Once Novozymes has met this prima-facie burden, "[t]he burden then shifts to the infringer to show that the inference is unreasonable for some or all of the lost sales." *Rite-Hite*, 56 F.3d at 1545. *See also Golden Blount*, 438 F.3d at 1372 ("By coming

[1] Damages figures will be updated through trial.

forward with no quantitative evidence to rebut this testimony, [the defendant] left itself open to the inferences reasonably drawn by the district court [that the plaintiff would have made all of the sales in a two-supplier market]."); *Cordis Corp.*, 2005 U.S. Dist. Lexis 10749 at *6 (D. Del. June 3, 2005) ("A patentee need not negate every possibility that a purchaser might have bought a product other than its own. To the contrary, so long as the patentee establishes each of the *Panduit* factors, the court may reasonably infer that the claimed lost profits were caused by the infringing sales."). Novozymes will more than meet this burden.

Defendants cannot rebut this prima facie showing. Genencor simply speculates that "at least some" consumers would have purchased different products. But this is not the sort of "quantitative evidence" sufficient to overcome the presumption of Novozymes' entitlement to lost profits. *Golden Blount*, 438 F.3d at 1372.

Because there are no acceptable noninfringing substitutes and Novozymes will meet its burden of entitlement to lost profits, the Court should therefore presume that Novozymes would have captured 100% of the infringing sales by Defendants.

ii. Lost Profits from Price Erosion

Genencor's infringement also forced Novozymes to reduce prices on its Liquozyme products to compete with sales of the infringing Spezyme Ethyl products. Novozymes is seeking damages for these lost profits on the products that it did sell under a price erosion theory. *See Crystal Semiconductor*, 246 F.3d at 1357 ("Reduction of prices, and consequent loss of profits, enforced by infringing competition, is a proper ground for awarding of damages.") (quoting *Yale Lock Mfg. Co. v. Sargent*, 117 U.S. 536, 511 (1886)).

"To recover lost profits on a theory of price erosion, a patentee must show that 'but for' infringement, it would have sold its product at a higher price." *Ericsson, Inc. v. Harris Corp.*, 352 F.3d 1369, 1378-79 (Fed. Cir. 2003) (citing *BIC Leisure Prods., Inc. v. Windsurfing Int'l, Inc.*, 1 F.3d 1214, 1220 (Fed. Cir. 1993)). The patentee must also present evidence of how much product it would have sold at the higher prices absent the infringement. *See id.*

Specifically, Novozymes is only seeking price erosion damages based on the *additional reduction* in prices that are directly attributable to patent infringement. Although Defendants had begun sales of Spezyme Ethyl products before the patent issued on March 15, 2005 and Novozymes had already reduced its prices in response to those sales, Novozymes only seeks price erosion damages for the additional, incremental reductions in price after the patent issued.

Expert Julie Davis will testify that absent the infringing sales, Novozymes would have maintained its pricing as it existed on March 15, 2005, with prices dropping by [redacted] on January 1, 2006. Davis will also testify that the market for alpha-amylase products is relatively price inelastic. If consumers no longer had another less costly but effective alternative to the Liquozyme products, they would pay a higher price. In other words, if the prices for Liquozyme had remained constant instead of decreasing, manufacturers of fuel ethanol would have continued to purchase Liquozyme products in the same quantities rather than use less effective and uneconomical enzymes (or discontinue their manufacturing of fuel ethanol altogether). Davis will further testify that because of the price erosion, Novozymes incurred an additional [redacted] in price erosion damages (as of July 2006).

B. Reasonable Royalty

Novozymes is also seeking damages based on a reasonable royalty for any manufacturing and sales to which it is not entitled to a lost profits award. First, Novozymes is entitled to a reasonable royalty for sales in other markets, such as sales outside of the United States and sales to the carbohydrate food processing industry. Second, Novozymes is seeking a reasonable royalty for any sales for the United States fuel ethanol industry to the extent they are not compensable as lost profits.

The Patent Act provides that a prevailing plaintiff is entitled, at a minimum, to a reasonable royalty for any infringement. *See* 35 U.S.C. § 284. "The royalty may be based upon an established royalty, if there is one, or if not, upon the supposed result of hypothetical negotiations between the plaintiff and defendant." *Rite-Hite*, 56 F.3d at 1554. "The hypothetical negotiation requires the court to envision the terms of a licensing agreement reached as the result of a supposed meeting between the patentee and the infringer at the time infringement began." *Id.* "Factors relevant in a reasonable royalty determination using this method include those set out in *Georgia-Pacific*." *Micro Chem., Inc. v. Lextron, Inc.*, 317 F.3d 1387, 1393 (Fed. Cir. 2003); *see also Georgia-Pacific Corp. v. United States Plywood Corp.*, 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970), *aff'd*, 446 F.2d 295 (2d Cir. 1971).

i. Reasonable Royalty for United States Fuel Ethanol Market

If the Court does not award lost profits for all of Defendants' infringing sales within the United States fuel ethanol industry, it should award a reasonable royalty for

any sales for which lost profits are not available.[2] Expert Davis will testify that under a hypothetical negotiation, the parties would have negotiated a royalty rate of no less than [redacted] in this market. This is based on the following factors:

1. Novozymes and Genencor are direct competitors in the fuel ethanol industry, and this industry represents the large majority of sales for alpha-amylase products.
2. These products are highly profitable. Novozymes alpha-amylase products have an average gross profit margin of [redacted], while Genencor had an average net margin before the patent issued of approximately [redacted].
3. There are no other technologies for manufacturing thermostable alpha-amylase products, so there is no competition that would drive down royalty rates.
4. Although the Novozymes and Genencor (and their respective predecessors) have previously negotiated licenses for unrelated and incidental patents, those licensing negotiations are not instructive here. Specifically, although Novozymes will sometimes license incidental patents, it has a policy of not licensing its key patents representing its core technology, such as that protected by its '031 patent-in-suit.
5. The parties would assume, as a matter of law, that the patent was valid and enforceable.
6. Novozymes would have recognized that granting a license would force it to reduce prices to remain competitive with licensed sales from Genencor.

[2] For example, if the Court awards lost profits for only 90% of Defendants' sales of infringing products within this industry, it should apply a reasonable royalty for the remaining 10% of sales.

Based on the application of various analytical frameworks, Davis will show that the parties would have agreed to a [redacted] royalty for these sales.

ii. ***Reasonable Royalty for Other Markets***

Davis will further testify that for sales other than for the United States fuel ethanol industry, such as sales for the food carbohydrate processing industry, the Court should award a reasonable royalty of no less than [redacted]. This is based on the application of factors similar to those discussed above.

This royalty is lower than for the fuel processing industry because these are less critical markets for Novozymes. One license agreement between Novo Nordisk A/S (a predecessor to Novozymes) and Genencor established a royalty rate for these lesser markets of between [redacted] and [redacted] "depending on the normal royalty rate typically paid for comparable products in comparable markets." Davis will opine that the upper end of this range is an appropriate royalty, and that a reasonable royalty for these sales would amount to additional damages of [redacted].

C. ***Prejudgment Interest & Costs***

The Court should also award prejudgment interest for its actual damages under 35 U.S.C. § 284, as well as its costs. "An award of prejudgment interest serves to make the patentee whole because the patentee also lost the use of its money due to infringement." *Crystal Semiconductor*, 246 F.3d at 1361. There are no circumstances here that would justify the denial of prejudgment interest, such as a substantial delay in filing suit.[3] *See General Motors Corp. v. Devex Corp.*, 461 U.S. 648, 657 (1983) ("Prejudgment interest should be awarded under § 284 absent some justification for withholding such an

[3] Novozymes filed suit on March 15, 2005, the same day the patent issued.

award."); *see also Crystal Semiconductor*, 246 F.3d at 1346 ("the discretion of the district court in denying prejudgment interest is limited to specific circumstances").

Expert Davis will testify that an appropriate rate for prejudgment interest is the prime rate, compounded annually. Those rates are listed in her report. If the Court awards damages according to Novozymes' calculations, the prejudgment interest through July 2006 will be at least [redacted].

III. ENHANCED DAMAGES AND ATTORNEYS FEES

The Court should also award treble damages because of Defendants' willful infringement and attorneys fees because this is an exceptional case. Genencor knew during development of its Spezyme Ethyl products that those products would literally infringe the pending claims of Novozymes' patent application. It simply assumed that the patent would not issue. When that assumption proved false and Genencor had notice that the claims had been allowed and would in fact issue as a patent, Genencor made no further inquiries or attempts to avoid infringement.

A. Treble Damages for Willful Infringement

The court may in its discretion enhance damages up to three times when there is a finding of willful infringement or bad faith on the part of an infringing party. *See* 35 U.S.C. § 284; *SRI Int'l, Inc. v. Advanced Techs. Labs., Inc.*, 127 F.3d 1462, 1468-69 (Fed. Cir. 1997). "The concept of 'willful infringement' is not simply a conduit for enhancement of damages; it is a statement that patent infringement, like other civil wrongs, is disfavored, and intentional disregard of legal rights warrants deterrence." *Knorr-Bremse Systeme Fuer Nutzfahrzeuge GMBH v. Dana Corp.*, 383 F.3d 1337, 1342 (Fed. Cir. 2004) (en banc).

"Fundamental to determination of willful infringement is the duty to act in accordance with law." *Id.* at 1343. Accordingly, a person with knowledge of a patent has an " 'affirmative duty to exercise due care to determine whether or not he is infringing,' including 'the duty to seek and obtain competent legal advice from counsel before the initiation of any possible infringing activity.'" *Knorr-Bremse*, 383 F.3d at 1345-46 (quoting *Underwater Devs., Inc. v. Morrison-Knudsen Co.*, 717 F.2d 1380, 1389-90 (Fed. Cir. 1983)); *see also Ryco, Inc. v. Ag-Bag Corp.*, 857 F.2d 1418, 1428 (Fed. Cir. 1988) ("The duty of due care normally requires that a potential infringer obtain competent legal advice before infringing or continuing to infringe."). In this context, "bad faith" properly "refers to an infringer's failure to meet his affirmative duty to use due care in avoiding infringement of another's patent rights." *Jurgens v. CBK, Ltd.*, 80 F.3d 1566, 1571 (Fed. Cir. 1996). Once Novozymes "present threshold evidence of culpable behavior," the burden shifts to Genencor to present "evidence that it acted with due care." *Golden Blount*, 438 F.3d at 1368.

There is abundant evidence here that would support a finding of willful or bad-faith infringement. Defendants were fully aware of the pending patent even before it issued and knew that their products read on the claims, but took no steps whatsoever to avoid infringement. They cannot meet their burden of showing that they acted with due care.

After Novozymes launched its Liquozyme products in 1999, the Novozymes products took over the market because of their vastly superior properties. Genencor then struggled to find a product that would compete. [redacted]

[redacted]

Because of the prior litigation, Genencor was aware of the potential that [redacted] would likewise infringe patents held by Novozymes. Douglass Crabb, the Vice President of Applications for Novozymes, previously testified via declaration that [redacted] (Emphasis added.) This statement, however, was disingenuous at best. Genencor was aware of the pending patent application from Novozymes and knew that it claimed a double deletion of two amino acid sequences at positions 179 and 180. They also knew the Spezyme Ethyl products had exactly the same deletions.

Genencor pinned its hopes on the assumption that the patent application would be rejected. Specifically, the Patent Office had earlier issued a preliminary rejection of these claims as obvious over the Suzuki reference. Its in-house legal department therefore assumed that those claims were not "likely to issue" and that no further action was necessary.

Novozymes successfully overcame the preliminary rejection and received a notice of allowed claims. On September 29, 2004, Novozymes wrote to Genencor specifically to inform it that "the recently allowed claims cover variants of *Bacillus*

stearothermophilus alpha-amylases and related alpha-amylases which comprise a deletion of amino acid residues 179 and 180." This letter further stated that the Spezyme Ethyl products would infringe this patent. The patent formally issued on March 15, 2005.

Despite this actual notice and the subsequent issuance of the patent, there is no evidence that Genencor took any further action to avoid infringement, including seeking an opinion of counsel concerning infringement or invalidity.[4] Instead, they simply carried on with sales of their profitable but infringing products. No attempt whatsoever was made to discharge their "affirmative duty of due care to avoid infringement." *Knorr-Bremse*, 383 F.3d at 1345-46.

Although Crabb testified under oath t[redacted] This conclusory opinion of in-house counsel before the patent issued provides no defense. *See, e.g.*, *SRI Int'l*, 127 F.3d at 1465-66 (Fed. Cir. 1997) (affirming finding of willful infringement notwithstanding "conclusory and woefully incomplete" opinions); *Underwater Devs.*, 717 F.2d at 1390 (holding that defendant's reliance on cursory noninfringement opinion by in-house counsel was probative of bad faith).

In *Acoustical Design, Inc. v. Control Electronics Co.*, 932 F.2d 939, 942 (Fed. Cir. 1991), the defendant had similarly asserted a good-faith belief of noninfringement

[4] Genencor is asserting privilege as to any advice of counsel concerning infringement. While this assertion of privilege does not itself create a presumption of willful infringement, neither does it help Genencor. *See Knorr-Bremse*, 383 F.3d at 1345-46; *see also L.A. Gear*, 988 F.2d at 1126 (" Although a party to litigation may indeed withhold disclosure of the advice given by its counsel, as a privileged communication, it will not be presumed that such withheld advice was favorable to the party' s position.").

because "the patent examiner [had] initially rejected [plaintiff's] patent applications." The patents were later allowed. The defendant further admitted that its assumption that the patents were invalid was only based on the opinion of in-house general counsel, not outside patent counsel. Under these facts, the District Court rejected the defendant's continued assertions of good faith as borderline perjurious and did not hesitate in awarding treble damages for willful infringement. The Federal Circuit readily affirmed. *See id.* ("it is clear that initial rejection by the Patent and Trademark Office of original claims that later were confirmed on reexamination hardly justifies a good faith belief in the invalidity of the claims").

Genencor was fully aware of the pending patent and the allowed claims, but made no attempt to determine whether it was infringing or take appropriate remedial steps. It instead simply continued selling its profitable infringing product for as long as it could.

This type of "deliberate disregard" of the patent presents a quintessential case of willful infringement. *Vulcan Eng'g Co. v. FATA Aluminium, Inc.*, 278 F.3d 1366, 1378 (Fed. Cir. 2002) ("The tort of willful infringement arises upon deliberate disregard for the property rights of the patentee."); *see, e.g.*, *Golden Blount*, 438 F.3d at 1369 (affirming finding of willful infringement where "[defendant] made little-to-no effort to assess whether it infringed or whether the patent was invalid after receiving notice of the patent."); *Imonex Servs. v. W.H. Munzprufer Dietmar Trenner GmbH*, 408 F.3d 1374, 1377-78 (Fed. Cir. 2005) (affirming finding of willfulness where defendant was aware of patent but continued selling infringing products without opinion of counsel); *Golight, Inc. v. Wal-Mart Stores, Inc.*, 355 F.3d 1327, 1339 (Fed. Cir. 2004) (affirming finding of willful infringement where defendant failed "to take any action after receiving a cease

and desist letter"); *Crystal Semiconductor*, 246 F.3d at 1352 (affirming finding of willful infringement where defendant "never sought advice of counsel as to whether it was infringing [plaintiff's] patents"); *L.A. Gear, Inc. v. Thom McAn Shoe Co.*, 988 F.2d 1117, 1126 (Fed. Cir. 1993) (affirming finding of willful infringement where plaintiff "introduced no evidence of whether it obtained an opinion of counsel that the [asserted] patent was not valid or not infringed, or any other support for a good faith belief that it was entitled to perform the infringing acts"); *Underwater Devs.*, 717 F.2d at 1390 (affirming finding of willful infringement where defendant had acted in "willful disregard" of the patents and "clearly failed to exercise its affirmative duty" to avoid infringement).

Finally, although Genencor has waged an aggressive litigation strategy, the mere fact that its litigation attorneys asserted a number of colorable defenses after Defendants were accused of infringement is not evidence that Genencor took reasonable efforts to avoid infringement. *See Crystal Semiconductor*, 246 F.3d at 1352 ("[a]lthough [defendant] obtained counsel to defend this action, defenses prepared for a trial are not equivalent to the competent legal opinion of non-infringement or invalidity which qualify as 'due care'"); *L.A. Gear*, 988 F.2d at 1126 ("a defensive pleading of invalidity or unenforceability may pass muster under Rule 11, yet not provide adequate defense to the charge of willful infringement"). Rather, the relevant question is whether "a *prudent person* would have *sound reason* to believe that the patent was not infringed or was invalid or unenforceable, and would be so held if litigated." *Knorr-Bremse*, 383 F.3d at 1347 (quoting *SRI Int'l*, 127 F.3d at 1465) (emphasis added). Genencor has identified no

reason, much less a "sound reason," that would support a good-faith belief of noninfringement.

Under these facts, the Court should find willful or bad faith infringement and therefore award treble damages.

B. Attorneys Fees for Exceptional Case

The Court should also award Novozymes its attorneys fees. *See* 35 U.S.C. § 285 ("The court in exceptional cases may award reasonable attorney fees to the prevailing party."). This case is exceptional because of Genencor's willful infringement. *See Golden Blount*, 438 F.3d at 1373-74 (affirming award of attorneys fees predicated on findings of willful infringement); *see also Golight, Inc. v. Wal-Mart Stores, Inc.*, 355 F.3d 1327, 1339-40 (Fed. Cir. 2004) ("Based on a finding of willful infringement, it is within the district court's discretion whether to award attorney fees under § 285.").

IV. CONCLUSION

For the forgoing reason, the Court should respectfully award actual damages for Defendants' infringement with prejudgment interest, treble damages for willful infringement, attorneys fees as an exceptional case, and costs.

EXHIBIT B

EXHIBIT B: DEFENDANTS' ISSUES OF FACT AND EXPECTED PROOF

Plaintiff Novozymes A/S ("Novozymes") bears the burden of proof on all issues remaining to be decided. As such, this summary attempts to anticipate what Novozymes will assert at trial.

I. INJUNCTIVE RELIEF

The Issue -- Whether Plaintiff is entitled to permanently enjoin the manufacturing, using, marketing, selling, distributing, or importing of Genencor's Spezyme® Ethyl[1] in the United States based on infringement of the '031 Patent, when Plaintiff does not manufacture or sell products that practice the technology protected by the '031 Patent, does not receive financial benefit from licensing the '031 Patent, and does not manufacture or sell products that compete with Spezyme® Ethyl.

A. Summary

Novozymes is seeking to use a patent it created by troubling prosecution conduct to remove competition from a critically important market, fuel ethanol production, in fulfillment of its plan to end "temporary" price reductions and resume collecting a monopolist's profits. Novozymes is not automatically entitled to issuance of a permanent injunction based on the Court's finding of liability. In fact, the Supreme Court recently held that the "Court of Appeals erred in its categorical grant" of injunctions in patent cases barring "unusual" cases, and clarified that to receive a permanent injunction, a patentee must demonstrate:

> (1) that it has suffered an irreparable injury; (2) that remedies available at law, such as monetary damages, are inadequate to compensate for that injury; (3) that, considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and (4) that the public interest would not be disserved by a permanent injunction.

eBay Inc. v. MercExchange, L.L.C., 126 S. Ct. 1837, 1839 (2006). The Supreme Court analogized to injunctions under the Copyright Act, where "this Court has consistently rejected invitations to replace traditional equitable considerations with a rule that an injunction automatically follows," and emphasized

[1] As used herein, Spezyme® Ethyl refers to all of Genencor's products that contain the same alpha-amylase contained in Spezyme® Ethyl.

that "traditional principles of equity" likewise govern injunctions in patent cases. *Id.* at 1840-41. Cases applying the Supreme Court's holding make it clear that the equities disfavor patentees who do not practice their patent, do not sell competing products, and/or do not license the patent for profit. *See, e.g., Voda v. Cordis Corp.*, No. CIV-03-1512-L, 2006 WL 2570614, at *5 (W.D. Okla. Sept. 5, 2006); *Paice LLC v. Toyota Motor Corp.*, No. 2:04-CV-211-DF, 2006 WL 2385139, at *1 (E.D. Tex. Aug. 16, 2006); *z4 Techs., Inc. v. Microsoft Corp.*, 434 F. Supp. 2d 437 (E.D. Tex. 2006); *Finisar Corp. v. The DirecTV Group, Inc.*, No. 1:05-CV-264, slip op. at 1 (E.D. Tex. July, 7, 2006) (Ex. 1), referencing *Finisar* July 6, 2006 Hearing Transcript at 123:4-126:20 (Ex. 2). Novozymes does none of these things.

B. Irreparable Harm

Defendants will show that Plaintiff has not met its burden to prove its entitlement to an injunction that permanently enjoins the manufacture, use, marketing, selling, distributing, or importing of Spezyme® Ethyl. First, Defendants will argue that irreparable harm may not be presumed, simply upon a finding of validity and infringement, based on the Supreme Court's decision in *eBay*, and subsequent lower court decisions applying *eBay*. *See e.g., Paice*, 2006 WL 2385139, at *4 (stating that "no presumption of irreparable harm should automatically follow from a finding of infringement"); *z4 Techs.*, 434 F. Supp. 2d at 440. In *eBay* the Supreme Court expressly warned against the application of categorical rules when applying traditional principles of equity; a presumption of irreparable harm is simply "not in line with the Supreme Court's holding, which mandates that courts balance the traditional principles of equity when considering the remedy of a permanent injunction in patent cases." *z4 Techs.*, 434 F. Supp. 2d at 440 (citing *eBay*, 126 S. Ct. at 1840-41).

Second, Defendants will show that Plaintiff has not met its burden to prove that it will be irreparably harmed if an injunction is denied.[2] Since the Supreme Court's ruling in *eBay*, courts

[2] To permit a public filing of this pretrial statement, Defendants have not included detail description of or quotations from the evidence, almost all of which was designated as "Highly Confidential."

considering cases where, as here, the patent owner did not practice the patent, did not license the patent for profit, and did not market and sell products that compete with the infringing products, found no irreparable harm and denied a permanent injunction, because the only possible "irreparable" harm suffered by such plaintiffs was the loss of their right to exclude others from making, using, and/or selling inventions protected by their patents. *See Voda*, 2006 WL 2570614, at *5-6; *Paice*, 2006 WL 2385139, at *4-5; *Finisar* (Hearing Tr. at 123–26); *z4 Techs.*, 434 F. Supp. 2d at 440-41. The *eBay* Court, however, found that the right to exclude alone is not sufficient to support a finding of injunctive relief. *eBay*, 126 S. Ct. at 1840. "Accordingly, a violation of the right to exclude does not inevitably lead to the conclusion that a patent holder cannot be adequately compensated by remedies at law such as monetary damages without first applying the principles of equity." *z4 Techs.*, 434 F. Supp. 2d at 441.

Applying this rationale, the courts in each of these cases held that there was no irreparable harm because money damages (such as through a compulsory license) would adequately compensate the plaintiffs for any harm. *See Voda*, 2006 WL 2570614, at *5-6 (finding no irreparable harm where only harm alleged was to licensee); *Paice*, 2006 WL 2385139, at *4-5; *z4 Techs.*, 434 F. Supp. 2d at 440-41; *Finisar* (Hearing Tr. at 123-26) (finding that patent owner who did not practice the patent or license it for profit could adequately be compensated through a compulsory license). These newer holdings flow directly from the ruling in *eBay*; there, the Supreme Court noted that past cases in which courts routinely granted permanent injunctions were unlike cases now arising in which patent owners do not practice or license the technology of the patent. *See also eBay*, 126 S. Ct. at 1842 (Kennedy, J. concurring). Accordingly, Novozymes has not suffered irreparable harm, because it voluntarily chose not to profitably license or practice the '031 Patent, and not to compete with the infringing product.

Third, Defendants will also argue that Novozymes[3] cannot make the required showing that its alleged irreparable harm was caused by infringing sales of SPEZYME® Ethyl. Any purported loss of good will, loss of sales, and price erosion began *years* before SPEZYME® Ethyl was launched, based on competition with Genencor's other products that Novozymes now dismisses. Novozymes' customers were also critical drivers of price declines; these typical business pressures, and the use of buying groups, contributed to Novozymes' woes. Further, Defendants will also argue that Novozymes is unable to prove that sales it allegedly lost to SPEZYME® Ethyl were due to the technology of the '031 Patent. Many customers also chose SPEZYME® Ethyl due to Defendants' superior customer service and related issues, and/or chose not to purchase Liquozyme because of displeasure with Novozymes.

Finally, Defendants will also argue that Novozymes fails to show purported harms are irreparable. For example, despite claiming irreparable lost sales, Novozymes' sales went up and it won back business after SPEZYME® Ethyl was on the market.

C. Adequate Remedy at Law

Defendants will show that Plaintiff has not met its burden to prove that money damages are not an adequate remedy, instead of an injunction. Again, Novozymes does not practice the '031 Patent, does not license the technology for profit (or intend to do so), and does not sell products that compete with SPEZYME® Ethyl. Thus, all that is at issue is Novozymes' right to exclude others from manufacturing, selling, or otherwise using the technology protected by the '031 Patent. The right to exclude under the Patent Act "is distinct from the provision of remedies for violations of that right." *eBay*, 126 S. Ct. at 1840. The Supreme Court clearly indicated in *eBay* that the "right to exclude" alone is not sufficient to support a finding of injunctive relief. *See eBay*, 126 S. Ct. at 1840. District Courts in cases since *eBay*

[3] Despite this Court's denial of its motion to amend, Novozymes continues to treat itself and its subsidiary – NZNA – as one entity. For the purpose of this statement, Defendants address the alleged harm Novozymes claims to have suffered, but in doing so do not concede that Novozymes itself has suffered any harm. In fact, all of the harm of which Novozymes complains is harm to non-party NZNA, not Novozymes. Thus Novozymes cannot demonstrate irreparable harm attributable to infringement, and no injunction should issue for that reason alone. *See Voda*, 2006 WL 2570614, at *5-6.

that have analyzed "right to exclude" factual situations have uniformly found that monetary relief is an adequate remedy at law. *See Voda*, 2006 WL 2570614, at *5-6; *Paice*, 2006 WL 2385139, at *5; (stating that "infringing one's right to exclude alone, however, is insufficient to warrant injunctive relief" and denying permanent injunction); *Finisar* (Hearing Tr. at 125:1–24) (finding that compulsory license will adequately compensate patent owner for future harm); *z4 Techs.*, 434 F. Supp. 2d at 441-42.

Further, even if the Court were to consider the factors on which Novozymes relies to argue "irreparable harm" and "no adequate legal remedy," these are standard elements of a patent damages analysis, and there are well-established methodologies that economists employ to quantify these types of harms. In fact, Novozymes' itself has quantified the purported lost market share and price erosion, and Novozymes' expert has stated that she is prepared to supplement her expert report as necessary to include any future damages should an injunction issue.[4]

D. Balance of Hardships

Defendants will further show that the balance of hardships does not warrant a remedy in equity. Defendants will show that if a legal remedy is used instead of an injunction, Plaintiff will lose no rights that it has previously chosen to exercise, because it does not practice the '031 Patent or manufacture or sell any product that competes with Defendants' SPEZYME® Ethyl, and has not licensed the '031 Patent for profit. *See z4 Techs*, 434 F. Supp. at 16; Ex. 2 at 125:5-16. The balance of hardships tips away from the plaintiff who will not lose sales or licensing revenue attributable to the patent. *See Paice*, 2006 WL 2385139, at * 6 (finding "the balance of hardships tips decidedly in favor of Defendants" where enjoining Defendant would interrupt Defendants' business and related businesses and where Plaintiff does not sell product competing with Defendants); *z4 Techs.*, 434 F. Supp. 2d at 442-43; *Finisar* (Hearing Tr. at 125:17–126:10). By contrast, Defendants launched SPEZYME® Ethyl in April 2004, after

[4] Conceding that an appropriate award of money damages is a remedy at law potentially available to Novozymes is not to concede that Novozymes' overstated damage claims have merit.

investing substantial time and money developing and launching before the '031 Patent issued, and before claims that arguably cover SPEZYME® Ethyl were even pending before the Patent Office.[5]

Further, Defendants show that if an injunction issues, Defendants will lose business and profits and spend time and resources assisting customers in switching away from their preferred product, Spezyme® Ethyl.

[5] Evidence has already been introduced during the liability trial that even before Genencor learned of the '031 Patent's claims, it had a good faith belief that such claims were invalid based on the Suzuki reference. (*See, e.g.*, Liability Hearing Tr. at 40:22-41:7.)

E. Public Interest

Defendants will show that Plaintiff cannot meet its burden to show that "the public interest would not be disserved by a permanent injunction." *eBay*, 126 S. Ct. 1841. Defendants will show that U.S. leaders, including the President, have emphasized that the United States must develop alternative fuels, including fuel ethanol, to protect national security, as well as for economic and environmental reasons. Defendants will show that an injunction in this case will harm domestic fuel ethanol producers because such an injunction would: 1) completely remove the technology at issue from the market, even though different enzymes maximize production at different fuel ethanol plants, and 2) increase the price for alpha-amylase enzymes, therefore increasing the price of ethanol products. The court in *Finisar* cautioned against "exclusion in a field where there are two competitors." *Finisar* (Hearing Tr. At 124:14-16). The *Finisar* court noted that it would be "imprudent for a district court to simply decide that it's going to issue an injunction that results in a total monopoly of something like satellite TV for the nation." Yet a near total monopoly over a critical component of the fuel ethanol process is exactly what Novozymes is asking this Court to create.

II. DAMAGES

A. Lost Profits

The Issue -- Whether Plaintiff meets its burden of proof that but for Defendants' infringement of the '031 Patent, it would have made Defendants' sales, when it does not manufacture or sell products that practice the technology protected by the '031 Patent, it does not manufacture or sell products that compete with Spezyme® Ethyl, and it fails to present evidence of profits that it lost as a consequence of sales lost by its non-exclusive licensee/subsidiary.

1. *Legal Standard*

"The finding of the amount of damages for patent infringement is a question of fact on which the patent owner bears the burden of proof." *BIC Leisure Prods., Inc. v. Windsurfing Int'l, Inc.*, 1 F.3d 1214, 1217 (Fed. Cir. 1993) (citing *SmithKline Diagnostics, Inc. v. Helena Labs. Corp.*, 926 F.2d 1161 at 1164

(Fed. Cir. 1991)). "Damage awards cannot be based upon speculation or optimism, but must be established by evidence." *Herbert v. Lisle Corp.*, 99 F.3d 1109, 1119 (Fed. Cir. 1996). *See also* 35 U.S.C. § 284; *SmithKline*, 926 F.2d at 1164; *Trell v. Marlee Elecs. Corp.*, 912 F.2d 1443, 1445 (Fed. Cir. 1990).

"To recover lost profits, a patent owner must prove 'a causal relation between infringement and its loss of profits.' More specifically, the patentee must show 'a reasonable probability that "but for" the infringing activity, the patentee would have made the infringer's sales.'" *Ericsson, Inc. v. Harris Corp.*, 352 F.3d 1369, 1377 (Fed. Cir. 2003) (quoting *BIC Leisure Prods.*, 1 F.3d at 1218); *Crystal Semiconductor Corp. v. TriTech Microelecs. Int'l, Inc.*, 246 F.3d 1336, 1353-1354 (Fed. Cir. 2001). To demonstrate "but for" causation, entails a "reconstruction" of the applicable market through "sound economic proof." *See id.* (citing *Grain Processing Corp. v. American Maize-Prods. Co.*, 185 F.3d 1341, 1350 (Fed. Cir. 1999)). The Federal Circuit has adopted a four-factor test, first articulated in *Panduit Corp. v. Stahlin Bros. Fibre Works, Inc.*, 575 F.2d 1152, 1156 (6th Cir. 1978), as the standard method for establishing lost profits. Under the *Panduit* test, the patentee must prove: (1) demand for the patented product; (2) absence of acceptable non-infringing substitutes; (3) manufacturing and marketing capability to exploit the demand; and (4) the amount of the profit it would have made. *Id.*

2. *Plaintiff is Not Entitled to the Purported Lost Profits of Its Non-Exclusive Licensee, Even When the Licensee is a Subsidiary*

Plaintiff may not recover any profits lost by its subsidiary/non-exclusive licensee based on infringing sales of Spezyme® Ethyl. Non-exclusive licensees have no proprietary interest in the patent for which they have a license and therefore do not suffer a legal injury as a result of infringement. *See Waterman v. MacKenzie*, 138 U.S. 252, 255 (1891); *Poly-America, L.P. v. GSE Lining Tech., Inc.*, 383 F.3d 1303, 1311 (Fed. Cir. 2004); *Rite-Hite Corp. v. Kelley Co., Inc.*, 56 F.3d 1538, 1552 (Fed. Cir. 1995); *Ortho Pharm. Corp. v. Genetics Inst., Inc.*, 52 F.3d 1026, 1032 (Fed. Cir. 1995). Accordingly, the Federal Circuit has held that a patentee cannot recover purported "lost profits" suffered by a non-

exclusive licensee allegedly resulting from patent infringement. *See Poly-America,* 383 F.3d at 1311. *See also Honeywell Int'l Inc. v. Universal Avionics Sys. Corp.*, 347 F. Supp. 2d 124, 125-26 (D. Del. 2004) (agreeing in dicta that patentees may not recover the lost profits of non-exclusive licensees). Defendants will demonstrate that Plaintiff's subsidiary Novozymes North America, Inc. ("NZNA") is a non-exclusive licensee of the '031 Patent; therefore Plaintiff may not recover any lost profits allegedly suffered by NZNA its non-exclusive licensee.

Further, Defendants will demonstrate that NZNA's status as Plaintiff's subsidiary does not provide a basis upon which Plaintiff may seek NZNA's purported lost profits. The Federal Circuit has stated that a corporate relationship between a patentee and a non-exclusive licensee, by itself, is not sufficient to permit the patentee to claim the non-exclusive licensee's lost profits. *See Poly-America*, 383 F.3d at 1311. In arriving at this conclusion, the Federal Circuit reasoned that patentee and the non-exclusive licensee

> "are not simply divisions of a single corporation, but are separate corporate entities. Their parent has arranged their corporate identities and functions to suit its own goals and purposes, but it must take the benefits with the burdens. While we do not speculate concerning the benefits that the two companies reap from dividing their operations and separating the owner of the patent from the seller of the patented product, Poly-America and Poly-Flex may not enjoy the advantages of their separate corporate structure, and, at the same time, avoid the consequential limitations of that structure – in this case, the inability of the patent holder to claim the lost profits of its non-exclusive licensee. While Poly-America may have the right to sue under its patents,…it can recover only its own lost profits, not Poly-Flex's."

Poly-America, 383 F.3d at 1311. *See also Merial Ltd. v. Intervet, Inc.*, 430 F. Supp.2d 1357, 1362 (N.D. Ga. 2006); *Schreiber Foods, Inc. v. Beatrice Cheese, Inc.*, 305 F. Supp. 2d 939, 950 (E.D. Wisc. 2004), *rev'd on other grounds,* 402 F.3d 1198 (Fed. Cir. 2005); *Carver v. Velodyne Acoustics, Inc.*, 202 F. Supp. 2d 1147, 1149 (W.D. Wash. 2002); *Lans v. Digital Equip. Corp.*, 84 F. Supp. 2d 112, 123 (D.D.C. 1999), *aff'd*, 252 F.3d 1320 (Fed. Cir. 2001); *Blumenthal v. Barber-Colman Holding Corp.*, No. 90 C 20365, 1991 WL 352525 (N.D. Ill. Nov. 26, 1991).

Plaintiff and NZNA have structured their corporate identities and functions to suit their own goals and purposes, namely beneficial tax purposes. Plaintiff may not claim the lost profits of its subsidiary simply based on the corporate relationship.

3. *Plaintiff Is Unable to Meet Its Burden of Proof Regarding Lost Profits Based on Insufficient Evidence*

a. Plaintiff's Expert Reports Are of No Value and Should Not Be Relied On Because They Improperly Treat Plaintiff and Its Non-Exclusive Licensee/Subsidiary as One Entity

Plaintiff relies on its Expert Report and Supplemental Expert Report to set forth its lost profits calculations. However, these reports are based on the erroneous assumption that Plaintiff and its non-exclusive licensee/subsidiary may be treated as one consolidated entity for the purpose of calculating damages. Because these reports are fatally flawed, and Plaintiff offers no other lost profits analysis, it is unable to meet its burden to establish any lost profits at all.

b. Plaintiff's Expert Report Contains Numerous Conceptual Errors and Unsupported Assumptions

In addition to the fundamental flaw of treating Plaintiff and NZNA as one, Plaintiff's Expert Report contains numerous conceptual errors and unsupported assumptions, including:

- over-estimation of Novozymes' "but-for" sales share (including failure to account for non-infringing substitutes);
- over-estimation of Novozymes' "but-for" profit margin; and
- the impact of Novozymes' "but-for" prices in her lost profits and price erosion calculations.

Further, the Expert Report relies on foundations that contradict the testimony of Plaintiff's 30(b)(6) witnesses. Defendants will explain these criticisms in detail at trial.

c. Plaintiff Suffered No Lost Profits

Plaintiff neither manufactures or sells products that practice the technology protected by the '031 Patent, nor manufactures or sells products that compete with Spezyme® Ethyl. At most, Plaintiff could receive 40% of the revenues generated from sales by its subsidiary of products that compete with

Spezyme® Ethyl, paid on a quarterly basis. The record lacks evidence indicating that Plaintiff received some or any of these 40% payments during the period of infringement. Accordingly, Plaintiff will be unable to meet its burden to prove its lost profits.

B. Reasonable Royalty

The Issue -- Whether Plaintiff is entitled to a reasonably royalty at all, including whether it met its burden for establishing a reasonable royalty rate or amount, when it failed to produce sufficient information or documentation to support a reasonable royalty determination by the Court. Alternatively, whether the Plaintiff's proposed reasonable royalty rate is appropriate.

1. *Legal Standard*

Ordinarily, an inadequate showing *vis-à-vis* lost profits requires the Court to award the patent owner a "reasonable royalty." *See* 35 U.S.C. § 284. A reasonable royalty is based "upon a hypothetical royalty resulting from arm's length negotiations between a willing licenser and a willing licensee." *Oxford Gene Tech Ltd. v. Mergen Ltd.*, 345 F. Supp. 2d 431, 441 (D. Del. 2004) (Jordan, J.) (quoting *Hanson v. Alpine Valley Ski Area, Inc.*, 718 F.2d 1075, 1078 (Fed. Cir. 1983)). Courts typically rely on the fifteen factors set forth in *Georgia-Pacific Corp. v. U.S. Plywood Corp.*, 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970) as a methodology by which to calculate a reasonable royalty. *See id.*

While courts have the benefit of considerable leeway in ascertaining the value of such a royalty, an analysis nevertheless demands "sound economic and factual predicates." *Riles v. Shell Exploration & Prod. Co.*, 298 F.3d 1302, 1311 (Fed. Cir. 2002); *see also Transclean Corp. v. Bridgewood Servs., Inc.*, 290 F.3d 1364, 1376 (Fed. Cir. 2002); *Unisplay, S.A. v. American Elec. Sign Co.*, 69 F.3d 512, 517 (Fed. Cir. 1995) ("Although th[e 'reasonable royalty'] analysis necessarily involves an element of approximation and uncertainty, a trier of fact must have some factual basis for a determination of a reasonable royalty. Any rate determined by the trier of fact must be supported by relevant evidence in the record.").

2. *Plaintiff Fails to Offer Evidence Upon Which One Could Determine A Reasonable Royalty*

Defendants will establish that Plaintiff has failed to timely produce evidentiary support upon which the Court can determine a reasonable royalty figure, thereby failing to meet its evidentiary burden. In light of the absence of competent evidence supporting the award of either lost profits by the Plaintiff (as opposed to some other, albeit related, entity) or a reasonable royalty owing the Plaintiff, the Court should deny a monetary award. *See Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 895 F.2d 1403, 1407 (Fed. Cir. 1990) (citing with approval *Devex Corp. v. General Motors Corp.*, 667 F.2d 347, 363 (3d Cir. 1981)), and the Third Circuit's affirmation of an "award of zero damages for lack of evidence," reasoning: "'The statute [35 U.S.C. § 284] requires the award of a reasonable royalty, but to argue that this requirement exists even in the absence of any evidence from which a court may derive a reasonable royalty goes beyond the possible meaning of the statute.'"); *Keg Techs, Inc. v. Laimer, LLC*, 436 F. Supp. 2d 1364, 1370 (N.D. Ga. 2006) (denying damages under either a lost profits or reasonable royalty theory for lack of competent evidence).

3. *Alternative Reasonable Royalty*

Alternatively, Defendants will refute Plaintiff's expert's calculation of a reasonable royalty. Among other problems, her calculation either fails to determine a reasonable royalty figure based on incremental profits (rather than actual profit) or her calculation of incremental profit is flawed because she fails to account for Genencor's non-infringing alternative products and assumes that Novozymes would have made 100% of sales actually made by Genencor in the "but for" world. Her inaccurate incremental profit determination results in higher reasonable royalty rates. Defendants, through their economics expert, will present corrections to her analysis at trial as an alternative reasonable royalty figure, should the Court determine that Novozymes is entitled to a reasonable royalty.

III. WILLFUL INFRINGEMENT

The Issue -- Whether Defendants' infringement of the '031 Patent was willful, and if so, whether damages should be enhanced and by how much.[6]

Willfulness is a question of fact, as to which Plaintiff bears the burden of proof by clear and convincing evidence. *See Oxford Gene Tech.*, 345 F. Supp. 2d at 442 (citing *Underwater Devices, Inc. v. Morrison-Knudsen Co.*, 717 F.2d 1380, 1389 (Fed. Cir. 1983) and *Shatterproof Glass Corp. v. Libbey-Owens Ford Co.*, 758 F.2d 613, 628 (Fed. Cir. 1985)). It is important to note that opinion of counsel is hardly the only evidence that may be offered in response to willfulness. *See Knorr-Bremse Systeme Fuer Nutzfahrzeuge GmbH v. Dana Corp.*, 383 F.3d 1337, 1342-43 (Fed. Cir. 2004); *Gustafson, Inc. v. Intersystems Indus. Prods., Inc.*, 897 F.2d 508, 510 (Fed. Cir. 1990). Rather, when considering allegations of willful patent infringement, courts should look to the "totality of the circumstances," including "whether the infringer deliberately copied the ideas or design of another; whether the infringer, when he knew of the other's patent protection, investigated the scope of the patent and formed a good-faith belief that it was invalid or that it was not infringed; and the infringer's behavior as a party to the litigation." *Oxford Gene Tech.*, 345 F. Supp. 2d at 442 (citing *Bott v. Four Star Corp.*, 807 F.2d 1567, 1572 (Fed. Cir. 1986), *overruled on other grounds by A.C. Aukerman Co. v. R.L. Chaides Const. Co.*, 960 F.2d 1020 (Fed. Cir. 1992)). *See also Knorr-Bremse*, 383 F.3d at 1342-44; *Biotec Biologische Naturverpackungen GmbH v. Biocorp., Inc.*, 249 F.3d 1341, 1356 (Fed. Cir. 2001) (affirming jury verdict of no willful infringement); *Ajinomoto Co. v. Archer-Daniels-Midland Co.*, 228 F.3d 1338, 1351-52 (Fed. Cir. 2000) (ruling district court did not err in denying enhanced damages even though infringer knew of patent and did not obtain advice of counsel where district court found infringer mounted "a substantial, albeit unsuccessful, challenge on the issues of validity and infringement," and did not find bad faith in the infringer's dealings with the patentee).

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[6] While Defendants dispute the conclusions of infringement, validity and enforceability of the '031 Patent, they are assumed for this phase of the case.

Defendants were not aware (and could not have been aware) of the issued claims in the '031 Patent prior to the launch of Spezyme® Ethyl, and therefore could not have deliberately copied the technology protected therein. Once aware of the claims in the '031 Patent, Defendants had a good faith belief that the patent was invalid as obvious based on the prior art. The charge of willfulness is contradicted by, among other things, testimony by Genencor that it believed the '031 Patent was obvious based on the prior art, this Court's denial of a preliminary injunction based on evidence of obviousness, trial testimony by Plaintiff's own expert (and others) that any scientist would have understood the prior art to render the '031 Patent obvious (including but not limited to based on the Suzuki reference), by this Court's conclusion of law that the '031 Patent was rendered *prima facie* obvious (rebutted only by unexpected test results), and by this Court's finding that Plaintiff's conduct during the prosecution of the '031 Patent was troubling. As a result, any enhancement of damages should be denied or minimal.

IV. EXCEPTIONAL CASE

The Issue -- Whether this is an exceptional case, and if so, whether Novozymes is entitled to an award of reasonable attorney fees.

"The court in exceptional cases may award reasonable attorney fees to the prevailing party." *See* 35 U.S.C. § 285. "The determination of whether a case is exceptional and, thus, eligible for an award of attorney fees under [§] 285 is a two-step process. First, the district court must determine whether the case is exceptional....After determining that a case is exceptional, the district court must determine whether attorney fees are appropriate... ." *eSpeed, Inc. v. Brokertec USA LLC*, 417 F. Supp. 2d 580, 599 (D. Del. 2006) (Jordan, J.) (quoting *Phonometrics, Inc. v. Westin Hotel Co.*, 350 F.3d 1242, 1245 (Fed. Cir. 2003)). To award attorneys' fees under U.S.C. § 285 requires that "the exceptional nature of the case ... be established by clear and convincing evidence." *Callaway Golf Co. v. Slazenger*, 384 F. Supp. 2d 735, 746 (D. Del. 2005).

A prevailing patentee may prove the existence of an exceptional case by showing willful infringement. *See id.* In this case, Plaintiff argues that this is an exceptional case based on its allegations

of willful infringement. As addressed above, Defendants will prove that they did not willfully infringe the '031 Patent; therefore, this is not an exceptional case.

Even if the Court were to find that Defendants willfully infringed the '031 Patent, Defendants will prove that an award of attorney fees is not justified. "Even an exceptional case does not require in all circumstances the award of attorney fees;" they are not automatic. *Id.* (quoting *S.C. Johnson & Son, Inc. v. Carter-Wallace, Inc.*, 781 F.2d 198, 201 (Fed. Cir. 1986)). *See also*, *Juicy Whip, Inc. v. Orange Bang, Inc.*, 382 F.3d 1367, 1373 (Fed. Cir. 2004) (ruling that the district court did not abuse its discretion in refusing to award enhanced damages and attorney's fees despite a finding of willful infringement); *Riles*, 298 F.3d at 1314 (affirming denial of enhanced damages despite jury's finding of willful infringement, where the district court determined that the issue of infringement was close and the infringer's litigation behavior did not provide a reason to increase damages); *Electro Sci. Indus., Inc. v. General Scanning, Inc.*, 247 F.3d 1341, 1353 (Fed. Cir. 2001); *Mentor H/S, Inc. v. Medical Device Alliance, Inc.*, 244 F.3d 1365, 1380 (Fed. Cir. 2001); *National Presto Indus., Inc. v. West Bend Co.*, 76 F.3d 1185, 1197 (Fed. Cir. 1996). To determine whether attorneys' fees are warranted, the Court "weigh[s] considerations such as the closeness of the case, the tactics of counsel, the conduct of the parties, and any other factors that may contribute to a fair allocation of the burdens of litigation as between winner and loser." *S.C. Johnson*, 781 F.2d at 201. S*ee also Superior Fireplace Co v. Majestic Prods. Co.*, 270 F.3d 1358, 1378 (Fed. Cir. 2001); *National Presto Indus.*, 76 F.3d at 1197.

Defendants will prove that attorneys' fees are not warranted because this was a close case, particularly in light of the Court's finding that the '031 Patent was *prima facie* obvious in light of prior art. Further, Defendants will demonstrate, if necessary, that their conduct was at all times reasonable and that their counsel did not employ improper litigation tactics.

EXHIBIT C

NOVOZYMES A/S v. GENENCOR/EDC
U. S. DIST. COURT, DEL.
C.A. NO. 05-160-KAJ

DEPOSITION DESIGNATIONS WITH OBJECTIONS

EXHIBIT C: DEPOSITION DESIGNATIONS

GREGORY K. LEFEBVRE – 08/19/05		
GENENCOR/EDC'S DESIGNATIONS	NOVOZYMES' COUNTER-DESIGNATIONS	NOVOZYMES' OBJECTIONS
4:3 – 4:12		
10:20 – 11:13	11:14 – 12:19	
32:6 – 32:21		
42:10 – 42:17		
43:21 – 44:4		
69:2 – 69:20		
71:10 – 71:13		
72:4 – 72:21		
87:16 – 87:21		Question is vague and ambiguous.
89:14 – 90:20		Hearsay.
93:7 – 93:18		
97:20 – 99:11		
100:10 – 101:20		
114:18 – 115:24		
139:21 – 140:8		
142:19 – 143:20		